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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/572,855	03/22/2006	Munekatsu Shimada	072280-0013	9266

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EXAMINER	
KIM, JOHN K	
ART UNIT	PAPER NUMBER
2834	
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/572,855	SHIMADA ET AL.	
	Examiner	Art Unit	
	JOHN K. KIM	2834	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *01 December 2008*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-35* is/are pending in the application.

4a) Of the above claim(s) *6-35* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-5* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *22 March 2006* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *4/13/2007, 3/22/2006*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. This Office action is in response to papers filed on 12/1/2008. Amendments made to the claims and Applicant's remarks have been entered and considered.

2. Claims 1-5, elected claims, are pending and are presented for examination.

Response to Arguments

3. Applicant amended claim with new limitations and therefore arguments moot.

4. The examiner's supplementary responses to the arguments are herewith presented respectively.

5. Restriction – The restriction has been made final in previous office action. Invention for product and invention for process (method of making) is considered separated invention when they are independent or the product can be made by different process or the process can produce different product. The examiner believes enough explanation has been provided as copied below.

"Group I is an apparatus of rotor. More particularly, an interior mount permanent magnet rotor for electric motor. Typical view is as show in Fig. 1.

Group III is an apparatus of a laser peening. Typical view is as shown in Fig. 4.

These two groups of apparatus are totally independent. Fig. 4 describes the independency very clearly. Part number 600 is the laser peening apparatus, and specification [0061] describes that "A laser peening apparatus 600 has a main unit 610 (laser irradiating device) for irradiating the laser and a tank 660 in which a work piece 200 is located." Further, specification [0062] describes that "The main unit 610 has a laser oscillator 620, an output adjusting device 630, a shutter 640, and a lens 650. The

tank 660 containing water 680 as the liquid through which the laser is transmitted, is equipped with a window 670 located on the side and a two-axis moving table (not shown)." Thus, the laser peening apparatus does not need a rotor for functioning. In illustration, rotor is a target or an example of application, and claim 26 recites such that "A laser peening apparatus comprising: a laser irradiating device for irradiating a rotor made of low iron loss magnetic steel with a laser through a liquid; ...", where irradiating a rotor is defined as an intended use. Meanwhile, claim 1 recites "A rotor .... improved by means of applying a laser peening ...", which is a product-by-process claim language". It is kindly advised the Finality is confirmed. The examiner wishes the applicant is in position of understanding the law and rule of examination. In case the decision can not be acceptable by the applicant, there still have an opportunity filing a petition.

6. The examiner regards limitation under "*by means of applying a laser peening of irradiating said bridge side with a laser through a liquid*" being negligible because of product-by-product limitation. Please find rules in MPEP copied below.

MPEP 2113 [R-1] Product-by-Process Claims

PRODUCT-BY-PROCESS CLAIMS ARE NOT LIMITED TO THE MANIPULATIONS OF THE RECITED STEPS, ONLY THE STRUCTURE IMPLIED BY THE STEPS

"[E]ven though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process." *In re Thorpe*, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985)

7. The examiner reviewed priority of the filing including PCT/JP04/13767 which has been filed and published in Japanese language.

Response to Amendment

8. The claim 1 has been amended with new limitations. The examiner reviewed amended claims and remarks as follows.

The amended claim 1 includes "... *by means of applying a laser peening of irradiating the inner circumference of the magnet insertion window at an angle relative to the inner circumference of the magnet insertion window with a laser through a liquid*". The examiner regards the limitation is negligible because of product-by-product limitation. It is to be noted, the cited prior art also discloses said bridge side (12) improved [0068, 0196] by means of applying a laser peening [0078].

Claim Rejections - 35 USC § 102

9. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

10. Claims 1-3 are rejected under 35 U.S.C. 102(b) as being anticipated by Shimada et al (US 2003/0201685).

As for claim 1, Shimada teaches (in Figs. 1-2) a rotor (1) using an electrical steel sheet with low iron loss (see abstract), the rotor comprising: a bridge (16) side (12) on an inner circumference of a magnet insertion window (2, 3) of said rotor, a strength of

said bridge side (12) improved [0068, 0196] by means of applying a laser peening [0078].

As for claim 2, Shimada teach the claimed invention as applied to claim 1 above. Shimada further teaches (in Figs. 1-2) said bridge side (12) irradiated with the laser is a region where a high stress occurs due to centrifugal force acting on a magnet when said rotor rotates. [0102]

As for claim 3, Shimada teach the claimed invention as applied to claim 1 above. Shimada further teaches (in Fig. 1) a magnet of said rotor for each pole is divided into a plurality of pieces. [0120, 0136]

Claim Rejections - 35 USC § 103

11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

12. The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.

4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

13. Claims 4-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shimada et al (US 2003/0201685) in view of Fukui et al (US 2002/0114824).

As for claim 4, Shimada teaches the claimed invention as applied to claim 1 above. Shimada, however, failed to teach or suggest said bridge side has a step. In the same field of endeavor, Fukui teaches (in Fig. 5) some portions of core piece are reduced by pressing. Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine the teaching of Fukui with that of Shimada for developing toward the space sides. [0007] Fukui discloses the claimed invention except for the step is at bridge side. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have the location of some portion for the step to be at bridge side, since it has been held that rearranging parts of an invention involved only routine skill in the art. *In re Japikse*, 86 USPQ 70 (CCPA 1950).

As for claim 5, Shimada and Fukui teach the claimed invention as applied to claim 4 above. Fukui further teaches (in Fig. 5) the step (10, 11) are located on one side or each side as teaching some portions of core piece are reduced by pressing and therefore, number of the portion is to be determined as a design option.

Conclusion

14. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a). A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date Of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened Statutory period, then the shortened statutory .period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JOHN K. KIM whose telephone number is (571)270-5072. The fax phone number for the examiner where this application or proceeding is assigned is 571-270-6072. The examiner can normally be reached on M-F 8-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Quyen Leung can be reached on 571-272-8188.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Quyen P Leung/
Supervisory Patent Examiner, Art Unit 2834

JK